

ABSTRACT

The conventional method of purifying and concentrating nucleic acids, because of dangerous chemicals, requires elaborate chemical equipment to result in restriction of environment available. Further, time-consuming operation is inevitable and high-speed centrifugation, etc. are needed to cause automation to be difficult and to cause high purification degree to be unattainable. Still further, in the purification method using a column/filter, application of dusty samples tends to invite clogging to lead to a drop of purification efficiency, and centrifugation or suction operation is needed to cause automation to be difficult. In this invention, surfactants (3,4) are adsorbed on impurity (2) contained in a sample, so that the impurity (2) conducts behavior different from that of nucleic acid (1) to thereby attain separation of the impurity (2) from the nucleic acid (1). Impurity (2) other than nucleic acid (1) is energized with cationic surfactant (4) and nonionic surfactant (3) and placed in an electric field to thereby effect separation and purification of the nucleic acid (1) for an analyte containing the impurity (2). Thus, the nucleic acid (1) is brought into the state of being concentrated or easily concentrated.